

January 3, 1966

Mr. Charles Ralph Buncher
Department of Biostatistics
Harvard University
School of Public Health
1 Shattuck Street
Boston, Massachusetts 02115

Dear Mr. Buncher:

I am happy you have had more success in getting some data out of the Navy than I did. I was specifically interested in the blood types at that time. Perhaps your remark about "data which are woefully incomplete in the information supplied about blood types" point to the real source of the trouble.

We have gotten birth dates on some fairly sizeable blood donor populations. After some false alarms on smaller samples, we could not verify any systematic difference as between different ABO and Rh types. However, this is not a very sensitive test for a possible impact on the seasonal variations of antibodies.

The experimental work behind that remark is the paper by Shaw and Stone quoted in the enclosure. I have talked to Dr. Stone, who is still at the Department of Genetics, University of Wisconsin, several times about this, and there does not seem to have been any significant follow-up. Their original report remains rather impressive. A reasonable basis for the seasonal variations of isoagglutinins is the seasonal occurrence of respiratory infection epidemics involving cross-reacting antigens. It remains an unanswered question whether this can have any bearing on the incidence of prenatal disease.

About seasonal variation in sex ratio, I trust you are acquainted with the work by Slatkin which was published in the American Journal for Human Genetics 5:21, 1953. However, I must say I am still rather skeptical about the sources of the effects, since there are so many possibilities of confounding with such variables as socio-economic status, perinatal disease, bias in reporting, the seasonal cycle. I guess I would put my main bet on perinatal disease as the principal influence on sex ratio effects. We will try to disentangle these as best we can in the census study which we are now involved in.

Sincerely,

Joshua Lederberg
Professor of Genetics

Season of birth

CR BUNCHER